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Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A method for automated processing of fault hypotheses in a course of a fault cause analysis in a case of a fault event in a technical installation, which comprises the steps of:

providing a data processing system which uses knowledge-based models for the fault cause analysis and physical models of installation functions and processes carried out by the technical installation, the data processing system having ~~first means~~ a first processor for calculating and storing installation and process states and the first means having access to the physical models and to data relating to the technical installation stored in a data server, the data processing system further having ~~second means~~ a second processor for hypothesis processing and an input/output device;

upon occurrence of a fault, determining, ~~through~~ by a user of the data processing system, an existence of a fault hypothesis;

Applic. No. 10/811,472

Response Dated December 28, 2006

Responsive to Office Action of September 28, 2006

accessing, through the second ~~means~~ processor for hypothesis processing, results of a calculation of the installation and process states and accessing a checklist of the knowledge-based models for automatically verifying the fault hypothesis determined to exist by the user in the determining step on a basis of conditions associated with checklist items in the checklist;

entering a verification result for each checklist item in a result list; and

outputting the result list.

Claim 2 (currently amended): A system for automated processing/verification of fault hypotheses determined by a user in a course of a fault cause analysis in a case of a fault event in a technical installation, the system comprising:

a data server storing data relating to the technical installation; and

a data processing system processing knowledge-based models for the fault cause analysis and physical models of technical installation functions and processes which can be carried out

Applic. No. 10/811,472

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Responsive to Office Action of September 28, 2006

by the technical installation, said data processing system  
containing:

a first ~~means~~ processor for calculating and storing  
installation and process states, said first means having  
access to the physical models and to the data stored in  
said data server for the technical installation;

a second ~~means~~ processor for hypothesis processing; and

an input/output device connected to said second ~~means~~  
processor for hypothesis processing, said input/output  
device being used as an interface by the user to  
determine the existence of a fault hypothesis in response  
to the fault event; and

said second processor being configured to process and  
verify the fault hypothesis determined by the user.

Claim 3 (currently amended): The system according to claim 2,  
wherein said data processing system is configured such that  
once a user has predetermined a fault hypothesis, said second  
~~means~~ processor for hypothesis processing accesses results of  
a calculation of the installation and process states and  
accesses a checklist of the knowledge-based models to

Applic. No. 10/811,472

Response Dated December 28, 2006

Responsive to Office Action of September 28, 2006

automatically verify the fault hypothesis on a basis of conditions which are associated with checklist items in the checklist, enters the verification result for each checklist item in a result list, and outputs the result list.